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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,037	01/10/2005	Jean-Marc Wiederrecht	GLN-056US	6643

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EXAMINER

BOES, TERENCE

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/521,037	Applicant(s) WIEDERRECHT, JEAN-MARC	
	Examiner Terence Boes	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 1/5/06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. JP 59019768 has been considered (see PTO 892).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. The claims are replete with grammatical errors and indefinite language to numerous to list in their entirety. What follows are a few examples. The examiner suggests rewriting the claims to correct for grammatical errors and indefinite language.

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3. The term "sufficient" in claims 1-16 is a relative term which renders the claim indefinite. The term "sufficient" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. How much rigidity is sufficient?

4. The term "properly" in claims 1-16 is a relative term which renders the claim indefinite. The term "properly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What level of force transmission is necessary to "properly ensure transmission"?

5. The term "substantially" in claims 3,6,8,9,11,13,15,16 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What width is necessary to "substantially" correspond?

6. The term "substantially" in claims 5,10-16 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What thickness is necessary to be "substantially" half that of the other half-tooth?

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7. The term "substantially" in claim 6,9,13,16 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What width is necessary to "substantially" correspond?

8. Regarding claims 3,6,8,9,11,13,15,16, the recitation "...corresponding to the clearance that the gear would have if it were the conventional type" is indefinite. Since the conventional type of gear is hypothetical one of ordinary skill in the art is unable to ascertain that which may or may not be readable there on.

9. Claims 4,7,8,9,12,14,15,16 recite the limitation "the pitch circle". There is insufficient antecedent basis for this limitation in the claim.

10. Claims 5, 10-16 recites the limitation "the hollowed half-tooth". There is insufficient antecedent basis for this limitation in the claim.

11. The term "slightly" in claims 2,6,7,9,10,13,14,16 is a relative term which renders the claim indefinite. The term "slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "slightly" renders the slot size indefinite. How far beyond the pitch circle does the slot extend?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4,6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 5919768.

JP 5919768 discloses:

- Two toothed wheels (13,12) cooperating with each other and without any clearance wherein: the teeth of one of the wheels are provided with a radial slot (14) which divides them into two half-teeth, and one of said half-teeth comprises a recess (Fig. 8a) enabling it to be deformed elastically upon compression, characterized in that the other half-tooth is complete and has sufficient rigidity to properly ensure transmission of the forces to which it is subjected.
- Characterized in that said radial slot extends slightly beyond pitch circle of the wheel (Fig. 7, Fig. 8a).
- Characterized in that, at the tip of the teeth, said radial slot has a width substantially corresponding to the clearance that the gear would have if it were of the conventional type.

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- Characterized in that said recess enlarges increasingly from the tip of the teeth towards the pitch circle of the wheel (Figs. 7-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5, 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5919768 in view of Imazaike (USP 4,127,041).

JP 5919768 discloses all of the claimed subject matter as described above.

JP 5919768 does not disclose a gear characterized in that the thickness of the hollowed half-tooth, on the pitch circle of the wheel is substantially, half that of the other half-tooth.

Imazaike teaches a gear characterized in that the thickness of the hollowed half-tooth, on the pitch circle of the wheel is substantially, half that of the other half-tooth for the purpose of providing an elastic deformation upon receiving an external force acting on the tooth surface, and allowing means for making the degree of this elastic deformation variable (C2/L50-55).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of JP 5919768 and provide a gear characterized in that the thickness of the hollowed half-tooth, on the pitch circle

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of the wheel is substantially, half that of the other half-tooth for the purpose of providing an elastic deformation upon receiving an external force acting on the tooth surface, and allowing means for making the degree of this elastic deformation variable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terence Boes whose telephone number is (571) 272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TB

4/10/06



RICHARD RIDLEY
SUPERVISORY PATENT EXAMINER